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## WHAT IS CLAIMED IS:

A carbonaceous nanotube, comprising:

a hollow part having an inner diameter of, at most, 5nm;

a thickness part having a thickness of, at most, 10nm; and

said thickness part being a carbon material comprising hydrogen atoms and carbon atoms.

2. The carbonaceous nanotube according to claim 1, wherein said thickness part is, at most, 5 nm.

3. The carbonaceous nanotube according to claim 1, further comprising at least one transition metal atom.

The carbonaceous nanotube according to claim 1, wherein said transition metal atom is iron.

5. A fiber aggregate, comprising:

carbonaceous nanotabes having a hollow part having an inner diameter of, at most, 5nm, a thickness part, comprising carbon atoms and hydrogen atoms, having a thickness of, at most, 10nn;

said carbonaceous nanotubes being present at a ratio of at least 70 weight % with respect to said fiber aggregate;

hydrogen atoms at a content ratio of  $0.1 \sim 1$  weight % with respect to said fiber aggregate; and

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carbon atoms at a content ratio of at least 98.5 weight % with respect to said fiber aggregate.

6. The fiber aggregate according to claim 5, wherein said thickness part has a thickness of, at most, 5nm.

7. The fiber aggregate according to claim 5, further comprising at least on transition metal atom.

8. The fiber aggregate according to claim 7, wherein said transition metal atom is iron.

The fiber aggregate according to claim 7, wherein said at least one transition metal atom is at a content ratio of  $0.005 \sim 1$  weight % with respect to said aggregate.

10. A method for manufacturing a carbonaceous nanotube, comprising: mixing a transition metal compound, containing at least one transition metal atom, a sulfur compound, containing at least one sulfur atom, an organic compound containing a hydrocarbon, and a carrier gas, to obtain a raw material mixture;

supplying said raw material mixture to a reaction region maintained at a temperature of about  $900 \sim 1,300$  °C inside a reaction tube;

adjusting said raw material mixture supply so that the concentration of said transition metal atom in said raw material mixture is in the range from about

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- $0.025 \sim 0.5$  mol %, and the concentration of said hydrocarbon in said raw material mixture is in the range represented by  $(273/(T-1000))^4 \sim 10((73/T-1000))$  mol %, wherein T represents the absolute temperature (K) of the reaction region.
- 11. The method for manufacturing a carbonaceous nanotube according to claim 10, wherein said transition metal compound is ferrocene.
- 12. The method for manufacturing a carbonaceous nanotube according to claim 10, wherein said sulfur compound is thiophene.

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